

Name: _____

Period: _____

- 1) A cone-shaped water cup has a diameter of 20 cm and an altitude of 4 cm. What is the volume of water that will fill the cup to HALF of its capacity?

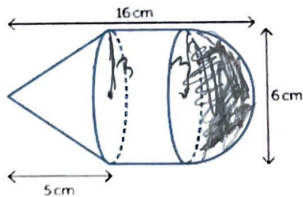
$$\frac{\frac{1}{3}(\pi)(10)^2(4)}{2} = 66.6\pi \text{ cm}^3 \text{ or } 209.4 \text{ cm}^3$$

- 2) The ornament below is composed of two congruent square pyramids. Each square pyramid has base side lengths of 6 inches and a height of 4 inches.

$$\frac{1}{3}(6)(6)(4)(2) = 96 \text{ in}^3$$



- 3) Find the volume of the shape below:



Cone and cylinder

$$\frac{\frac{1}{3}\pi(3)^2(5) + \pi(3)^2(6)}{1} = 114\pi \text{ cm}^3 \text{ or } 358.1 \text{ cm}^3$$

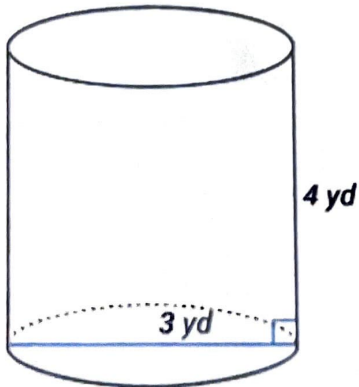
- 4) A sphere has a radius $r = 7$ inches. What is its approximate volume?

$$\frac{4}{3}(\pi)(7)^3 = 457.3\pi \text{ in}^3 \text{ or } 1436.8 \text{ in}^3$$

- 5) Calculate the volume of a square-based pyramid with an altitude height of 5 ft and base edges of 11 ft.

$$\frac{1}{3}(11)^2(5) = 201.6 \text{ ft}^3$$

- 6) Calculate the volume of the cylinder:



$$\pi(1.5)^2(4) = 9\pi \text{ yd}^3$$

or

$$28.3 \text{ yd}^3$$